

The Moose Rut

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I WAS IN discussion recently with a moose hunter who was rather eloquent in stating that if he could find a wallow he would sit at this site and hopefully a bull will turn up. He was most surprised to hear me explain the function of the wallow and that he is simply wasting good hunting time by doing this. As I write this (mid-September) the rut is in full swing. During my years with Manitoba Conservation I examined many reproductive tracts from female moose and was able to gather the following information: the average breeding date is September 28th and the median (that point in time when 50% of the cows are bred and 50% after) is September 26th. The earliest breeding date was August 21 (a single cow bred and one as late as November 21 (a year and a half old cow).

The rutting period is not just the actual breeding (copulation) period as some think, but it is a series of physiological and behavioural changes which culminate with breeding. The first evidence of the rut onset is the change in colour of the facial hairs of bulls. The summer colour is a light brown similar to that on cows but around mid-August as testosterone levels begin to build the colour changes from light brown to a dark brown/black. This darker complexion remains until the hair is shed the following spring. The next event is velvet shedding which occurs first with the mature bulls and then with teenagers a little later. This starts around September 5 but I have observed large bulls velvet free on September 1 – my field observations over the last 2-3 years seem to suggest this is occurring a little later but more observations are needed for confirmation. As the rut becomes more intense, bulls that were friendly to each other during the summer period become extremely aggressive to old friends and fights do occur with bulls of the same social rank. And, locked antlers do occur with death to the combatants. Another phenomenon is the cessation of feeding by bulls which can last for up to about 18 days. And, it is during this rutting period that bulls can lose from 12-20% of their pre rut body

weight. It should be noted that moose are in their best shape just as the rutting period commences.

Moose in Manitoba do not gather harems as do those found in other parts of their range notably the Yukon and Alaska. Yes, one might see a bull with 2 or 3 cows but not large harems comprised of perhaps up to a 10 or so cows.

Now, to those wallows – they are used only once. This is in contrast to what occurs with buck deer which will revisit scrapes they have made previously. Bull moose make wallows (depressions in the ground) into which they urinate and subsequently splash the urine on the underside of their antlers and bell region using their front feet. The bell is a glandular structure and during this wallowing phase the hairs become erect and spread apart such that the urine can penetrate to the base of the hairs and the odours which are so attractive to cows will remain for a longer period. It may be that odours emitted from the glandular bell combine with the scented urine are extremely attractive to cows. I have, on many occasions, watched cows nuzzle mature bulls in the bell region with both vocalizing.

Bulls, when making wallows, paw the ground with their front feet and subsequently try to urinate - this process is repeated and like clockwork it is on the 7th try that urine is expelled into the depression. He then stands back, pounds his front feet into the wallow and the urine is splashed onto the underneath of the antlers and the bell. He subsequently will lie down in the wallow thereby perfuming his body with the urine containing sexual pheromones which cows find especially attractive. If a cow is nearby she will sniff the urinating bull and let the urine run over her nose and in some cases will give him what I call a “lifter” in the groin area that certainly gets the big boy’s attention! When the bull stands, the cow will in turn lie down in the wallow and emit a moaning sound. I have also witnessed calves lying with the cow and have recorded this behaviour on video - it is amazing to watch the process. In September 2014, I was with my granddaughter in Riding Mountain National Park and we observed a bull make the wallow, splash urine on himself and then the

cow which had been feeding nearby rushed over to join him in the wallow. My granddaughter thought this was rather cool so called her grandmother and explained what we had just witnessed and said “Grampy gets so excited when he sees this” - we all had a chuckle over her observations and I pointed out to her that not many people see such behaviour.

My earlier observations witnessed a bull attempt to urinate 7 times. It was fascinating and since then I recently reread the classic book by Randolph Peterson entitled “The North American Moose” in which there is a report of a similar field observation. After each bout of trying to urinate he will commence digging again, sniff at the wallow and repeat the process. I have a hypothesis namely that bulls retain urine in the bladder such that when they do urinate there is an ample quantity to perfume himself well with what I call “eau de moose”. It is a strong pungent odour that is readily recognized once you have smelled it. I have followed innumerable bulls and watched this behaviour. I have also seen mature bulls make a wal-

low and go through the process while younger bulls associated with him have also made a wallow, urinated, sniffed at it and then walked away. I have approached such wallows after the younger bull has moved off, smelled it, but sensed no pungent odour typical of that seen with mature bulls. And, for the record I do have photographs of such wallows. The suggestion is that the presence of the mature bulls may delay production of the pheromones in the urine of these younger animals.

The extent to which bulls advertise their sexual readiness is dependent on his maturity, body mass, antler size and breeding experience. Following velvet shedding prime bulls broadcast their copulatory readiness by what we will call hiccup calls, pawing of the ground to make wallows and urination into these wallows, profuse salivation (nose dripping) and saturation of the bell region and underside of antlers with urine.

Once the rut is over, pregnancy lasts about 230 days with the peak of calving occurring around May 20.

In conclusion, sitting at wallows is a waste of time!!!

Manitoba moose populations are at critically low numbers in several areas in the province!

The Manitoba Natural Resource Officers' Association is requesting your assistance in preventing illegal activities that are detrimental to moose numbers and population recovery efforts.

Please report moose hunting in Conservation Closure areas, hunting from highways and provincial roads, hunting in Wildlife Refuges and road refuge corridors, the sales or bartering of wild meat, hunting on private land without permission, and killing of wrong age or sex of big game.

Help protect Manitoba's moose now and for future generations by contacting your local Conservation Officer or calling the Turn In Poachers Line.

Callers should attempt to provide as much information as possible by watching for the following:

- Time and location of the offence
- Make, model, color, and vehicle license plate
- Number and description of people
- Direction of travel
- Any other useful information

NEVER TAKE THE LAW INTO YOUR OWN HANDS

